

AMENDMENTS TO THE CLAIMS

Claims 1-41 (Canceled).

42. (New) A plant for producing logs of web material, comprising in combination at least:

– a winder which receives at least one web material and produces large diameter reels by winding said web material around winding mandrels;

– at least one unwinder which unwinds said large diameter reels to provide unwound web material and which feeds the unwound web material to a converting line;

– a plurality of carriages which transfer said large diameter reels with said mandrels from a loading station to said at least one unwinder, sustain said reels in the at least one unwinder during unwinding and convey the mandrels following unwinding to a recovery area.

43. (New) The plant as claimed in claim 42, further comprising a transfer device for transferring the reels with said mandrels from the winder to said carriages.

44. (New) The plant as claimed in claim 43, wherein said transfer device comprises a conveyor running between said winder and said loading station.

45. (New) The plant as claimed in claim 44, wherein said conveyor comprises a conveying guide for said reels.

46. (New) The plant as claimed in claim 45, wherein said conveying guide supports the reels via protruding ends of the winding mandrels.

47. (New) The plant as claimed in claim 44, wherein said conveyor comprises moving parts which are positionable in a retracted position for inlet and outlet of the carriages to and from said loading station, and in an active position which permits transfer of the reels to said carriages positioned in the loading station.

48. (New) The plant as claimed in claim 45, wherein said conveyor further comprises moving parts which are positionable in a retracted position for inlet and outlet of the carriages to and from said loading station, and in an active position which permits transfer of the reels to carriages positioned in the loading station.

49. (New) The plant as claimed in claim 46, wherein said conveyor further comprises moving parts which are positionable in a retracted position for inlet and outlet of the carriages to and from said loading station, and in an active position which permits transfer of the reels to said carriages positioned in the loading station.

50. (New) The plant as claimed in claim 42, 43 or 44, further comprising a continuous paper machine for producing said web material, said web material including at least one ply of paper, said continuous paper machine being arranged in relation to said winder to feed said web material from said continuous paper machine to said winder.

51. (New) The plant as claimed in claim 42, 43 or 44, wherein said unwinder comprises two stations for two of said carriages.

52. (New) The plant as claimed in claim 51, wherein between the loading station and the unwinder a mechanism is present which is constructed and arranged to rotate said carriages approximately 180° around a substantially vertical axis before inserting the carriages in the unwinder, the two of said carriages being simultaneously present in the unwinder and being rotated approximately 180° with respect to each other.

53. (New) The plant as claimed in claim 42, 43 or 44, further comprising a parking area for said reels produced by said winder, when said unwinder is unable to receive said reels.

54. (New) The plant as claimed in claim 42, 43 or 44, wherein said carriages comprise a locking device for locking the mandrels on which said web material is wound.

55. (New) The plant as claimed in claim 54, wherein said locking device is combined with a rolling track on which said mandrels roll, the locking device retaining the mandrels in a predetermined position along said rolling track.

56. (New) The plant as claimed in claim 55, wherein said rolling track slants with respect to horizontal, to permit rolling by gravity of the mandrels along the track.

57. (New) The plant as claimed in claim 45, wherein a rolling track, on which said mandrels roll, is arranged to constitute an extension of the conveying guide for the reels in the loading station.

58. (New) The plant as claimed in claim 55, wherein said locking device comprises, for each end of the mandrels, a lever mechanism defining a seat for housing and retaining a corresponding end of a respective one of the mandrels, and an actuator to lock and release the mandrels by said lever mechanism.

59. (New) The plant as claimed in claim 58, wherein said lever mechanism comprises a member defining said seat, sustained by an oscillating lever and a pair of levers hinged together.

60. (New) The plant as claimed in claim 59, wherein said pair of levers is combined with an actuator which

causes opening and closing of the pair of levers, said opening and closing causing oscillation of said oscillating lever and an oscillation and/or translation movement of the member defining the seat for housing and retaining the end of the respective one of the mandrels, to perform functions of receiving the reels, lifting the reels from the rolling track and lowering the seat below the rolling track to permit unloading of the mandrels.

61. (New) The plant as claimed in claim 60, wherein said actuator is a cylinder-piston actuator.

62. (New) The plant as claimed in claim 60, wherein said actuator comprises a twin cylinder-piston system.

63. (New) The plant as claimed in claim 62, wherein said oscillating lever is combined with a shock absorber.

64. (New) The plant as claimed in claim 63, wherein an elastic member parallel to said shock absorber is combined therewith.

65. (New) The plant as claimed in claim 59, wherein said oscillating lever and said pair of levers are arranged so that impact of one of said mandrels against said seat causes raising of the member defining the seat.

66. (New) The plant as claimed in claim 42, 43 or 44, wherein said carriages comprise motorized members which are

arranged to rotate the mandrels and angularly position the reels including the mandrels.

67. (New) The plant as claimed in claim 42, 43 or 44, wherein a guide is provided in said loading station for unloading the mandrels having the web material unwound therefrom from the carriages.

68. (New) The plant as claimed in claim 67, wherein said guide for unloading the mandrels comprises movable portions which are positionable in a retracted position for inlet and outlet of the carriages to and from said loading station, and in an active position which permits passage of the mandrels from the carriage to the unloading guide.

69. (New) The plant as claimed in claim 42, 43 or 44, wherein said carriages are self-moving and remote-controlled.

70. (New) Method for producing reels of wound web material and transforming said reels into finished products, said method comprising:

- winding web material around winding mandrels to form said reels;
- loading the reels with said winding mandrels on respective moveable carriages;
- transferring the reels and the mandrels by said carriages to at least one unwinder;

6725/USSN 10/581,298
Group Art Unit 1731

– supporting the reels and the mandrels by said carriages and unwinding said web material from said mandrels;

– following said unwinding of said web material, transferring by said carriages the mandrels from the unwinder to a recovery area for said mandrels.